SEQUENCE LISTING

- <110> ALDAZ, MARCELO C. BEDNAREK, ANDRZEJ
- <120> WWOX: A PUTATIVE TUMOR SUPPRESSOR GENE MUTATED IN
 MULTIPLE CANCERS
- <130> UTSC:671US
- <140> UNKNOWN
- <141> 2001-10-15
- <150> 60/240,277
- <151> 2000-10-13
- <160> 68
- <170> PatentIn Ver. 2.1
- <210> 1
- <211> 414
- <212> PRT
- <213> Human
- <400>
- Met Ala Ala Leu Arg Tyr Ala Gly Leu Asp Asp Thr Asp Ser Glu Asp 1 5 10 15
- Glu Leu Pro Pro Gly Trp Glu Glu Arg Thr Thr Lys Asp Gly Trp Val 20 25 30
- Tyr Tyr Ala Asn His Thr Glu Glu Lys Thr Gln Trp Glu His Pro Lys 35 40 45
- Thr Gly Lys Arg Lys Arg Val Ala Gly Asp Leu Pro Tyr Gly Trp Glu
 50 55 60
- Gln Glu Thr Asp Glu Asn Gly Gln Val Phe Phe Val Asp His Ile Asn 65 70 75 80
- Lys Arg Thr Thr Tyr Leu Asp Pro Arg Leu Ala Phe Thr Val Asp Asp 85 90 95
- Asn Pro Thr Lys Pro Thr Thr Arg Gln Arg Tyr Asp Gly Ser Thr Thr 100 105 110
- Ala Met Glu Ile Leu Gln Gly Arg Asp Phe Thr Gly Lys Val Val Val 115 120 125
- Val Thr Gly Ala Asn Ser Gly Ile Gly Phe Glu Thr Ala Lys Ser Phe 130 135 140
- Ala Leu His Gly Ala His Val Ile Leu Ala Cys Arg Asn Met Ala Arg 145 150 155 160

Ala Ser Glu Ala Val Ser Arg Ile Leu Glu Glu Trp His Lys Ala Lys 165 170 175

Val Glu Ala Met Thr Leu Asp Leu Ala Leu Leu Arg Ser Val Gln His 180 185 190

Phe Ala Glu Ala Phe Lys Ala Lys Asn Val Pro Leu His Val Leu Val 195 200 205

Cys Asn Ala Ala Thr Phe Ala Leu Pro Trp Ser Leu Thr Lys Asp Gly 210 215 220

Leu Glu Thr Thr Phe Gln Val Asn His Leu Gly His Phe Tyr Leu Val 225 230 235 240

Gln Leu Leu Gln Asp Val Leu Cys Arg Ser Ala Pro Ala Arg Val Ile 245 250 255

Val Val Ser Ser Glu Ser His Arg Phe Thr Asp Ile Asn Asp Ser Leu 260 265 270

Gly Lys Leu Asp Phe Ser Arg Leu Ser Pro Thr Lys Asn Asp Tyr Trp 275 280 285

Ala Met Leu Ala Tyr Asn Arg Ser Lys Leu Cys Asn Ile Leu Phe Ser 290 295 300

Asn Glu Leu His Arg Arg Leu Ser Pro Arg Gly Val Thr Ser Asn Ala 305 310 315 320

Val His Pro Gly Asn Met Met Tyr Ser Asn Ile His Arg Ser Trp Trp
325 330 335

Val Tyr Thr Leu Leu Phe Thr Leu Ala Arg Pro Phe Thr Lys Ser Met 340 345 350

Gln Gln Gly Ala Ala Thr Thr Val Tyr Cys Ala Ala Val Pro Glu Leu 355 360 365

Glu Gly Leu Gly Gly Met Tyr Phe Asn Asn Cys Cys Arg Cys Met Pro 370 375 380

Ser Pro Glu Ala Gln Ser Glu Glu Thr Ala Arg Thr Leu Trp Ala Leu 385 390 395 400

Ser Glu Arg Leu Ile Gln Glu Arg Leu Gly Ser Gln Ser Gly 405 410

<210> 2

<211> 2264

<212> DNA

<213> Human

<213> Homo sapiens

```
<400> 2
gcagtgcgca ggcgtgagcg gtcgggcccc gacgcgcgcg ggtctcgttt ggagcgggag 60
tgagttcctg agcgagtgga cccggcagcg ggcgataggg gggccaggtg cctccacagt 120
cagccatggc agcgctgcgc tacgcggggc tggacgacac ggacagtgag gacgagctgc 180
ctccgggctg ggaggagaa accaccaagg acggctgggt ttactacgcc aatcacaccg 240
aggagaagac tcagtgggaa catccaaaaa ctggaaaaag aaaacgagtg gcaggagatt 300
tgccatacgg atgggaacaa gaaactgatg agaacggaca agtgtttttt gttgaccata 360
taaataaaag aaccacctac ttggacccaa gactggcgtt tactgtggat gataatccga 420
ccaagccaac cacceggcaa agatacgacg gcagcaccac tgccatggaa attctccagg 480
gccgggattt cactggcaaa gtggttgtgg tcactggagc taattcagga atagggttcg 540
aaaccgccaa gtcttttgcc ctccatggtg cacatgtgat cttggcctgc aggaacatgg 600
caagggcgag tgaagcagtg tcacgcattt tagaagaatg gcataaagcc aaggtagaag 660
caatgaccct ggacctcgct ctgctccgta gcgtgcagca ttttgctgaa gcattcaagg 720
ccaagaatgt gcctcttcat gtgcttgtgt gcaacgcagc aacttttgct ctaccctgga 780
gtctcaccaa agatggcctg gagaccacct ttcaagtgaa tcatctgggg cacttctacc 840
ttgtccagct cctccaggat gttttgtgcc gctcagctcc tgcccgtgtc attgtggtct 900
cctcagagtc ccatcgattt acagatatta acgactcctt gggaaaactg gacttcagtc 960
gcctctctcc aacaaaaac gactattggg cgatgctggc ttataacagg tccaagctct 1020
gcaacatect ettetecaae gagetgeace gtegeetete eccaegeggg gteaegtega 1080
acgcagtgca tcctggaaat atgatgtact ccaacattca tcgcagctgg tgggtgtaca 1140
cactgctgtt taccttggcg aggcctttca ccaagtccat gcaacaggga gctgccacca 1200
ccgtgtactg tgctgctgtc ccagaactgg agggtctggg agggatgtac ttcaacaact 1260
gctgccgctg catgccctca ccagaagctc agagcgaaga gacggcccgg accctgtggg 1320
cgctcagcga gaggctgatc caagaacggc ttggcagcca gtccggctaa gtggagctca 1380
gageggatgg geacacacae eegecetgtg tgtgteeeet eacgeaagtg eeagggetgg 1440
gccccttcca aatgtccctc caacacagat ccgcaagagt aaaggaaata agagcagtca 1500
caacagagtg aaaaatctta agtaccaatg ggaagcaggg aattcctggg gtaaagtatc 1560
acttttctgg ggctgggcta ggcataggtc tctttgcttt ctggtggtgg cctgtttgaa 1620
agtaaaaacc tgcttggtgt gtaggttccg tatctccctg gagaagcacc agcaattctc 1680
tttcttttac tgttatagaa tagcctgagg tcccctcgtc ccatccagct accaccacgg 1740
ccaccactgc agccgggggc tggccttctc ctacttaggg aagaaaaagc aagtgttcac 1800
tgctccttgc tgcattgatc caggagataa ttgtttcatt catcctgacc aagactgagc 1860
cagcttagca actgctgggg agacaaatct cagaaccttg tcccagccag tgaggatgac 1920
agtgacaccc agagggagta gaatacgcag aactaccagg tggcaaagta cttgtcatag 1980
actcctttgc taatgctatg caaaaaattc tttagagatt ataacaaatt tttcaaatca 2040
ttccttagat accttgaaag gcaggaaggg aagcgtatat acttaagaat acacaggata 2100
ttttgggggg cagagaataa aacgttagtt aatccctttg tctgtcaatc acagtctcag 2160
ttctcttgct ttcacattgt acttaaacct cctgctgtgc ctcgcatcct atgcttaata 2220
aaagaacatg cttgaatatc aaaaaaaaaa aaaaaaaaa aaaa
                                                                  2264
<210> 3
<211> 26
<212> DNA
<213> Homo sapiens
<400> 3
acggtggtgg cagctccctg ttgttg
                                                                  26
<210> 4
<211> 29
<212> DNA
```

<400> 4

<210> 5

<211> 19 <212> DNA

<400> 10

<213> Homo sapiens

acggtggtgg cagctccctg ttgcgatgg

29

33

32

30

33

27

	<210> 17 <211> 23 <212> DNA	
	<213> Homo sapiens	
	<400> 17 gagttcctga gcgagtggac ccg	23
	<210> 18 <211> 30 <212> DNA <213> Homo sapiens	
	<400> 18 tagtttttat tattattagt ttttattatt	30
	<210> 19 <211> 22 <212> DNA <213> Homo sapiens	
100 mm		
100 Miles	<400> 19 aatactacat cctaaacaac aa	22
per service and se	<210> 20 <211> 30 <212> DNA <213> Homo sapiens	
The state of the s	<400> 20 agtttttatt attatgagtt tttattaaat	30
eretari.	<210> 21 <211> 20 <212> DNA <213> Homo sapiens	
	<220> <221> modified_base	
	<222> (3)(5) <223> R = A OR G	
	<400> 21 ccrcrcaata ctacatccta	20
	<210> 22 <211> 20 <212> DNA	

	<213> nomo sapiens	
	<220>	
	<221> modified_base	
	<222> (11)	
	$\langle 223 \rangle \text{ Y = C OR T/U}$	
	(223) 1 - C OK 1/0	
	<400> 22	
	gggatgaggt ygttttgttt	20
	<210> 23	
	<211> 24	
	<212> DNA <213> Homo sapiens	
	(213) 1101110 Sapicits	
	<400> 23	
	tcataaatct ctattaaaca acaa	24
	010 04	
7 71	<210> 24	
AD.	<211> 21	
.El	<212> DNA	
***	<213> Homo sapiens	
	<220>	
	<221> modified_base	
Lab	<222> (2)	
the state of the s	<223> Y = C OR T/U	
	<400> 24	
100	gygtagtgtt gtattttgaa t	21
the state that all the state that		
	<210> 25	
222	<211> 28	
ĥ=k	<212> DNA	
	<213> Homo sapiens	
	<400> 25	
	tcacaatctc tattatatat tttaacta	28
	<210> 26	
	<211> 19	
	<212> DNA	
	<213> Homo sapiens	
	<220>	
	<221> modified_base	
	<222> (9)(11) <223> R = A OR G	
	$C_{\Delta \Delta \Delta} = A \cup R \cup G$	
	<400> 26	
	tcctcccrc rcaaataac	19

```
<210> 27
<211> 30
<212> DNA
<213> Homo sapiens
<400> 27
ttattattat gagtttttat taaataatag
                                                                   30
<210> 28
<211> 24
<212> DNA
<213> Homo sapiens
<400> 28
ggcacgaggc agtgcgcagg cgtgagcggt cgggccccga cgcgcgcggg tctcgtttgg 60
agegggagtg agtteetgag egagtggace eggeageggg egataggggg geeaggtgee 120
tecacagtea gecatggeag egetgegeta egeggggetg gaegacaegg acagtgagga 180
cgagctgcct ccgggctggg aggagagaac caccaaggac ggctgggttt actacgccaa 240
tcacaccgag gagaagactc agtgggaaca tccaaaaact ggaaaaagaa aacgagtggc 300
aggagatttg ccatacggat gggaacaaga aactgatgag aacggacaag tgttttttgt 360
tgaccatata aataaaagaa ccacctactt ggacccaaga ctggcgttta ctgtggatga 420
taatccgacc aagccaacca cccggcaaag atacgacggc agcaccactg ccatggaaat 480
tetecaggge egggatttea etggeaaagt ggttgtggte aetggageta atteaggaat 540
agcaacaggg agctgccacc accgtgtact gtgctgctgt cccagaactg gagggtctgg 600
gagggatgta cttcaacaac tgctgccgct gcatgccctc accagaagct cagagcgaag 660
agacggcccg gaccctgtgg gcgctcagcg agaggctgat ccaaqaacqq cttqqcaqcc 720
agtccggcta agtggagctc agagcggatg ggcacacaca cccgccctgt qtqtqtcccc 780
teacgeaagt gecaggetg ggeeettee aaatgteeet ceaacacaga teegeaagag 840
taaaggaaat aagagcagtc acaacagagt gaaaaatctt aagtaccaat gggaagcagg 900
gaatteetgg ggtaaagtat cacttttetg gggetggget aggeataggt etetttgett 960
tctggtggtg gcctgtttga aagtaaaaac ctgcttggtg tgtaggttcc gtatctccct 1020
ggagaagcac cagcaattct ctttctttta ctqttataqa ataqcctqaq qtcccctcqt 1080
cccatccage taccaccacg gccaccactg cagccqqqqq ctqqccttct cctacttaqq 1140
gaagaaaaag caagtgttca ctgctccttg ctgcattgat ccaggagata attgtttcat 1200
tcatcctgac caagactgag ccagcttagc aactgctggg gagacaaatc tcaqaacctt 1260
gtcccagcca gtgaggatga cagtgacacc cagagggagt agaatacgca gaactaccag 1320
gtggcaaagt acttgtcata gactcctttg ctaatgctat gcaaaaaatt ctttagagat 1380
tataacaaat ttttcaaatc attccttaga taccttgaaa ggcaggaagg gaaqcqtata 1440
tacttaagaa tacacaggat attttggggg gcagagaata aaacgttagt taatcccttt 1500
gtctgtcaat cacagtctca gttctcttgc tttcacattg tacttaaacc tcctgctgtg 1560
cctcgcatcc tatgcttaat aaaagaacat gcttgaatat caaaaaaaaa aaaaaaaaa 1620
aaaaa
                                                                   1625
<210> 29
<211> 23
<212> DNA
<213> Homo sapiens
<400> 29
tagtgttgta ttttgaatag tag
                                                                   23
```

<211 <212)> 3(.> 16 ?> DI ?> Ho	525	sapie	ens												
	.> CI)S L34) .	(10	069)												
)> 3(legaç		agtgo	cgcag	gg cg	gtgag	geggt	c agg	ggcc	ccga	cgcg	gcgcg	ggg 1	tatag	gtttgg	60
agco	ggag	gtg a	agtto	cctga	ag cg	gagto	ggac	c cg	gcago	cggg	cgat	tagg		gccaç	ggtgcc	120
tcca	ıcagt	ca g												gac a Asp :		169
														acc Thr		217
														cag Gln		265
														ttg Leu		313
														ttt Phe 75		361
														gcg Ala		409
act Thr	gtg Val	gat Asp 95	gat Asp	aat Asn	ccg Pro	acc Thr	aag Lys 100	cca Pro	acc Thr	acc Thr	cgg Arg	caa Gln 105	aga Arg	tac Tyr	gac Asp	457
														act Thr		505
aaa Lys 125	gtg Val	gtt Val	gtg Val	gtc Val	act Thr 130	gga Gly	gct Ala	aat Asn	tca Ser	gga Gly 135	ata Ile	gca Ala	aca Thr	gly aaa	agc Ser 140	553
tgc Cys	cac His	cac His	cgt Arg	gta Val	ctg Leu	tgc Cys	tgc Cys	tgt Cys	ccc Pro	aga Arg	act Thr	gga Gly	Gly 999	tct Ser	gly aaa	601

											gcc Ala					649
											gct Ala					697
											agt Ser 200					745
											cct Pro					793
											cag Gln					841
											aat Asn					889
											ctt Leu					937
											gcc Ala 280					985
											ctg Leu					1033
caa Gln	ttc Phe	tct Ser	ttc Phe	ttt Phe 305	tac Tyr	tgt Cys	tat Tyr	aga Arg	ata Ile 310	gcc Ala	tga	ggto	ccct	cg		1079
tccc	atco	cag c	ctaco	cacca	ac gg	gccac	cact	gca	gccg	1999	gata	gcct	tc t	ccta	acttag	1139
ggaa	gaaa	aa g	gcaag	gtgtt	c ac	tgct	cctt	gct	gcat	:tga	tcca	aggag	gat a	aatto	gtttca	1199
ttca	tcct	ga c	caac	gacto	ja go	cago	ttag	g caa	ctgo	tgg	ggag	jacaa	at o	ctcas	gaacct	1259
tgto	ccag	gcc a	igtga	ıggat	gac	agto	jacac	c cca	ıgagg	gag	taga	atac	gc a	agaad	ctacca	1319
ggtg	gcaa	ag t	actt	gtca	ıt aç	gacto	cttt	gct	aatg	jcta	tgca	ıaaaa	at t	cttt	agaga	1379
ttat	aaca	aa t	tttt	caaa	ıt ca	ttcc	ttag	g ata	cctt	gaa	aggo	agga	ag g	ggaag	gcgtat	1439
atac	ttaa	iga a	taca	cago	ga ta	tttt	gggg	g ggc	agag	jaat	aaaa	ıcgtt	ag t	taat	ccctt	1499
tgto	tgtc	aa t	caca	gtct	c ag	ttct	ctto	ctt	tcac	att	gtac	ttaa	ac c	ctcct	gctgt	1559

aaaaaa

gcctcgcatc ctatgcttaa taaaagaaca tgcttgaata tcaaaaaaaa aaaaaaaaa 1619

1625

<210> 31 <211> 311 <212> PRT <213> Homo sapiens <400> 31 Met Ala Ala Leu Arg Tyr Ala Gly Leu Asp Asp Thr Asp Ser Glu Asp 10 Glu Leu Pro Pro Gly Trp Glu Glu Arg Thr Thr Lys Asp Gly Trp Val Tyr Tyr Ala Asn His Thr Glu Glu Lys Thr Gln Trp Glu His Pro Lys Thr Gly Lys Arg Lys Arg Val Ala Gly Asp Leu Pro Tyr Gly Trp Glu Gln Glu Thr Asp Glu Asn Gly Gln Val Phe Phe Val Asp His Ile Asn 70 Lys Arg Thr Thr Tyr Leu Asp Pro Arg Leu Ala Phe Thr Val Asp Asp 85 90 Asn Pro Thr Lys Pro Thr Thr Arg Gln Arg Tyr Asp Gly Ser Thr Thr Ala Met Glu Ile Leu Gln Gly Arg Asp Phe Thr Gly Lys Val Val 120 Val Thr Gly Ala Asn Ser Gly Ile Ala Thr Gly Ser Cys His His Arg 135 140 Val Leu Cys Cys Cys Pro Arg Thr Gly Gly Ser Gly Arg Asp Val Leu 150 155 Gln Gln Leu Leu Pro Leu His Ala Leu Thr Arg Ser Ser Glu Arg Arg 165 Asp Gly Pro Asp Pro Val Gly Ala Gln Arg Glu Ala Asp Pro Arg Thr Ala Trp Gln Pro Val Arg Leu Ser Gly Ala Gln Ser Gly Trp Ala His 200 Thr Pro Ala Leu Cys Val Ser Pro His Ala Ser Ala Arg Ala Gly Pro 215 220 Leu Pro Asn Val Pro Pro Thr Gln Ile Arg Lys Ser Lys Gly Asn Lys 230 235 Ser Ser His Asn Arg Val Lys Asn Leu Lys Tyr Gln Trp Glu Ala Gly 245 Asn Ser Trp Gly Lys Val Ser Leu Phe Trp Gly Trp Ala Arg His Arg Ser Leu Cys Phe Leu Val Val Ala Cys Leu Lys Val Lys Thr Cys Leu 280 Val Cys Arg Phe Arg Ile Ser Leu Glu Lys His Gln Gln Phe Ser Phe 295 Phe Tyr Cys Tyr Arg Ile Ala

<211 <212)> 32 -> 17 ?> DN 3> Ho	732 JA	sapie	ens												
	.> CI		(83	38)												
)> 32 acgag		agtgo	cgcag	gg cg	gtgag	geggt	cgg	ggcco	ccga	cgcg	gegeg	ggg t	catas	, gtttgg	60
agco	ggag	gtg a	agtto	cctga	ag co	gagto	ggaco	c cgg	gcago	ggg	cgat	aggg	ggg 9	gccac	ggtgcc	120
tcca	acagt	ca g											-	gac a Asp I	_	169
														acc Thr		217
_			_			_						_		cag Gln		265
									_		-		_	ttg Leu		313
														ttt Phe 75		361
														gcg Ala		409
														tac Tyr		457
														act Thr		505
														gaa Glu		553
														tgc Cys 155		601
aac	ato	acs	agg	aca	agt	craa	aca	ata	tca	cac	att	tta	ora e	C a a	taa	619

Asn Met Al	a Arg Ala : 160	Ser Glu		Val 9 165	Ser A	Arg	Ile	Leu	Glu 170	Glu	Trp	
caa cag gg Gln Gln Gl 17	y Ala Ala '											697
gag ggt cte Glu Gly Let 190	g gga ggg a u Gly Gly 1	atg tac Met Tyr 195	ttc a	aac a Asn <i>l</i>	aac t Asn C	ys	tgc Cys 200	cgc Arg	tgc Cys	atg Met	ccc Pro	745
tca cca gas Ser Pro Gli 205	u Ala Gln :	agc gaa Ser Glu 210	gag a	acg g Thr <i>I</i>	Ala A	egg Arg 215	acc Thr	ctg Leu	tgg Trp	gcg Ala	ctc Leu 220	793
agc gag agg Ser Glu Arg	g ctg atc o g Leu Ile o 225	caa gaa Gln Glu	cgg (Arg]	Leu (ggc a Gly S 230	agc Ser	cag Gln	tcc Ser	ggc Gly	taa 235		838
gtggagctca	gagcggatg	g gcaca	cacac	ccg	ccctg	gtg	tgtg	rtacc	ct	cacgo	caagtg	898
ccagggctgg	geceettee	a aatgto	ccctc	caac	cacag	gat	ccgc	aaga	ıgt i	aaago	gaaata	958
agagcagtca	caacagagt	g aaaaat	ctta	agta	accaa	atg	ggaa	gcag	199 i	aatto	ctggg	1018
gtaaagtatc	acttttctg	g ggctgg	ggcta	ggca	atagg	gtc	tctt	tgct	:tt «	ctggt	ggtgg	1078
cctgtttgaa	agtaaaaac	tgcttq	ggtgt	gtag	ggtto	cg	tato	tccc	tg g	gagaa	gcacc	1138
agcaattctc	tttctttta	tgttat	agaa	tago	ectga	ıgg	tccc	ctcg	jtc (ccato	cagct	1198
accaccacgg	ccaccactgo	c agccgg	ggggc	tggo	ccttc	ctc	ctac	ttag	igg (aagaa	aaagc	1258
aagtgttcac	tgctccttg	c tgcatt	gatc	cago	gagat	aa	ttgt	ttca	itt (catco	tgacc	1318
aagactgagc	cagettage	a actgct	aggg	agac	caaat	ct	caga	.acct	tg t	taca	gccag	1378
tgaggatgac	agtgacacco	agaggg	gagta	gaat	cacgo	ag	aact	acca	ıgg t	tggca	aagta	1438
cttgtcatag	actcctttg	taatgo	ctatg	caaa	aaaat	tc	ttta	gaga	itt a	ataac	aaatt	1498
tttcaaatca	ttccttagat	acctto	gaaag	gcac	ggaag	199	aagc	gtat	at a	actta	ıagaat	1558
acacaggata	ttttgggggg	g cagaga	ataa	aacc	gttag	jtt .	aatc	cctt	tg t	ctgt	caatc	1618
acagtctcag	ttctcttgct	: ttcaca	attgt	actt	aaac	ct	cctg	ctgt	gc (ctcgc	atcct	1678
atgcttaata	aaagaacato	g cttgaa	atatc	aaaa	aaaaa	aa .	aaaa	aaaa	aa a	aaaa		1732

<210> 33 <211> 234 <212> PRT

<213> Homo sapiens

<210> 36 <211> 20 <212> DNA

```
<400> 33
Met Ala Ala Leu Arg Tyr Ala Gly Leu Asp Asp Thr Asp Ser Glu Asp
Glu Leu Pro Pro Gly Trp Glu Glu Arg Thr Thr Lys Asp Gly Trp Val
                                 25
Tyr Tyr Ala Asn His Thr Glu Glu Lys Thr Gln Trp Glu His Pro Lys
Thr Gly Lys Arg Lys Arg Val Ala Gly Asp Leu Pro Tyr Gly Trp Glu
Gln Glu Thr Asp Glu Asn Gly Gln Val Phe Phe Val Asp His Ile Asn
                                         75
Lys Arg Thr Thr Tyr Leu Asp Pro Arg Leu Ala Phe Thr Val Asp Asp
                                     90
Asn Pro Thr Lys Pro Thr Thr Arg Gln Arg Tyr Asp Gly Ser Thr Thr
Ala Met Glu Ile Leu Gln Gly Arg Asp Phe Thr Gly Lys Val Val Val
                            120
Val Thr Gly Ala Asn Ser Gly Ile Gly Phe Glu Thr Ala Lys Ser Phe
                        135
Ala Leu His Gly Ala His Val Ile Leu Ala Cys Arg Asn Met Ala Arg
                    150
                                        155
Ala Ser Glu Ala Val Ser Arg Ile Leu Glu Glu Trp Gln Gln Gly Ala
                165
                                    170
Ala Thr Thr Val Tyr Cys Ala Ala Val Pro Glu Leu Glu Gly Leu Gly
                                185
Gly Met Tyr Phe Asn Asn Cys Cys Arg Cys Met Pro Ser Pro Glu Ala
                            200
Gln Ser Glu Glu Thr Ala Arg Thr Leu Trp Ala Leu Ser Glu Arg Leu
                       215
Ile Gln Glu Arg Leu Gly Ser Gln Ser Gly
                    230
<210> 34
<211> 19
<212> DNA
<213> Homo sapiens
<400> 34
agcaggcgtg agcggtcgg
                                                                   19
<210> 35
<211> 23
<212> DNA
<213> Homo sapiens
<400> 35
actggatttc agcttcgtgg tcg
                                                                   23
```

14

		<213> HOMO	sapiens		
		<400> 36			
			gtgcagggtc		2(
•		<210> 37			
		<211> 28			
		<212> DNA			
		<213> Homo	sapiens		
		-400- 27			
		<400> 37	ttccttctta	tatctqqq	2.0
					28
		0.00			
		<210> 38 <211> 27			
		<211> 27 <212> DNA			
		<213> Homo	sapiens		
		<400> 38	caccctatga	tataata	۰-
	Tand To		caccecaega	CCCatc	27
	The strate and the strate and the strate and the strate st				
	A STORY	<210> 39	·		
		<211> 24 <212> DNA			
		<213> Homo	sapiens		
	Park.		-		
	LLP	<400> 39			
	L, L	atggtcttta	cttctccctg	gcac	24
	<u>}-</u> }:	<210> 40			
		<211> 29			
	100	<212> DNA			
	in	<213> Homo	sapiens		
		<400> 40			
		acttctgcta	agattacaga	tacacactg	29
		<210> 41			
		<211> 26			
		<212> DNA			
		<213> Homo	sapiens		
		<400> 41			
		agttctttca	ggtttaagga	ataagc	26
					-
		<210> 42			
		<211> 28			
		<212> DNA			
		<213> Homo	sapiens		

	<400> 42			
	tagatctaag	tggatctcat	tatagcag	28
	.010. 42			
	<210> 43 <211> 25			
	<211> 25 <212> DNA			
	<213> Homo	canienc	_	
	\213> Hollo	papiens		
	<400> 43			
	acttggggta	atttaagtgg	tgctc	25
	<210> 44			
	<211> 27			
	<212> DNA	anniona		
	<213> Homo	sapiens		
	<400> 44			
		actccactga	aatctcc	27
T)		3		
١	<210> 45			
	<211> 21			
i.	<212> DNA			
ini.	<213> Homo	sapiens		
	-100- 15			
Ξ,	<400> 45	ggaattccga		21
Lak	accadacagg	ggaaccccga		21
122				
partie.	<210> 46			
F.	<211> 21			
	<212> DNA			
ne L	<213> Homo	sapiens		
	<400> 46			
	teteecaatt	gtgttcatct	g	21
	<210> 47			
	<211> 19			
	<212> DNA			
	<213> Homo	sapiens		
	<400> 47			
	acatccatgg	atcccgaag		19
	<210> 48			
	<210> 48 <211> 23			
	<211> 23			
	<213> Homo	sapiens		
		T		

	<4002 40			
	tggtatgaga	aaggggataa	gtg	23
	<210> 49			
	<211> 25			
	<212> DNA			
	<213> Homo	sapiens		
		-		
	<400> 49			
		attccttaga	tttcc	25
	-55+	gu		
	<210> 50			
	<211> 20			
	<212> DNA			
	<213> Homo	sapiens		
		2012		
	<400> 50			
		tgcccgcaag		20
	accagaccca	cyccoycaay		۷.
AND COLUMN TO THE COLUMN TO TH				
ar.	<210> 51			
The state of the s	<211> 23			
# 8 # 8	<211> 23			
**************************************		anniona		
100	<213> Homo	saprens		
	<400> 51			
garia, glice gara, mug garia, mig,g. garia, d. B. Book Book Book and 'trop' see at 'book Book odede de 'book seede oothe Book		ahaha-h		
i.	aaatgacgcc	atctcatcac	tee	23
3				
ļ.	.010. 50			
r i	<210> 52			
ordina to the second se	<211> 24			
156	<212> DNA			
Start Hart	<213> Homo	sapiens		
Sart S	400 50			
and the same of th	<400> 52	to!		
	tgttttcctg	gcatctacga	gaag	24
	-010: 50			
	<210> 53			
	<211> 17			
	<212> DNA			
	<213> Homo	sapiens		
	<400> 53			
	tttttaacag	tcacacc		17
	<210> 54			
	<211> 17			
	<212> DNA			
	<213> Homo	sapiens		
	<400> 54			

	tgtgtttcag	atttgcc
	<210> 55	
	<211> 17	
	<212> DNA	
	<213> Homo	sapiens
	<400> 55	
	ttttgggcag	ccatata
	.010. 50	
	<210> 56 <211> 17	
	<211> 17 <212> DNA	
	<213> Homo	sapiens
		=
	<400> 56	
	taaaccatag	ggttcga
	<210> 57	
111	<211> 17	
417	<212> DNA	
that disk and must controlled the tenter that the state of the state o	<213> Homo	sapiens
55 T	<400> 57	
	ctcattgcag	cataaad
Bak Seb		Judaug
	<210> 58	
ined Ben	<211> 17	
ini Li	<212> DNA	aan.i
all plus, all pluss ging.	<213> Homo	sapiens
af s	<400> 58	
in it	ttttttcagg	cctcttc
*	, ,	
	<210> 59	
	<211> 33	
	<212> DNA	
	<213> Homo	sapiens
	-400- FO	
	<400> 59 tatttttaag	atttaca
	Jacobbaag	accided
	<210> 60	
	<211> 17	
	<212> DNA <213> Homo	conione
	ZIJ> NUIIO	paprens
	<400> 60	
	ggatttccag	caacagg

<210> 61	
<211> 17	
<212> DNA	
<213> Homo	sapiens
<400> 61	
acgccaagta	agggggc
<210> 62	
<211> 17	
<212> DNA	
<213> Homo	sapiens
	-
<400> 62	
gcaggaggtt	tqtatqt
3 33 33	
<210> 63	
<211> 17	
<212> DNA	
<213> Homo	caniene
(213) HOMO	papiens
<400> 63	
ttgttgagta	~~!~~!~~!
tigitgagta	agigici
010 61	
<210> 64	
<211> 17	
<212> DNA	
<213> Homo	sapiens
<400> 64	
ggaataggta	ggctctt
<210> 65	
<211> 17	
<212> DNA	
<213> Homo	sapiens
<400> 65	
agaatgggta	agcgctt
<210> 66	
<211> 17	
<212> DNA	
<213> Homo	sapiens
<400> 66	
gaatgtgtga	gtgttcc

<210> 67 <211> 17 <212> DNA <213> Homo	sapiens	
<400> 67 cccatcggtg	ggtttga	
<210> 68 <211> 17 <212> DNA <213> Homo	sapiens	
<400> 68 gtccatggta	agagaac	